Prosody outweighs statistics: evidence from German

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It is well established that infants are able to segment fluent speech into words from about 7-8 months of age (Höhle & Weissenborn, 2003; Jusczyk & Aslin, 1995). Research suggests that they use at least two mechanisms: prosodic cues, especially the word stress pattern (Höhle et al., 2009), and statistical learning, i.e. transitional probabilities (Aslin, Saffran & Newport, 1998).

Following the results from Thiessen & Saffran (2003), we tested 7-and 9-month-old German infants in the HPP procedure. They were familiarized with an artificial iambic language string created with natural language and tested with three conditions: prosodic words, statistical words and non-words. 7-month-old German infants looked longer to the statistical words (p = .021) and to the non-words (p = .024) compared to the prosodic word trials, suggesting that they rely more on the prosodic cues to extract words from the string already at 7 months of age. The 9-month-old group did not show any preference.

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